

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	"4109633".pn.	US-PGPUB; USPAT	OR	OFF	2006/03/16 06:39
L2	85	(miwa or yoshinaga or kanao).inv. and electrode\$1 and ignition	US-PGPUB; USPAT	OR	OFF	2006/03/16 07:41
L3	49	2 and center adj electrode	US-PGPUB; USPAT	OR	OFF	2006/03/16 07:41
L4	11	3 and earth adj electrode	US-PGPUB; USPAT	OR	OFF	2006/03/16 07:42
L5	1	((center and earth)adj electrode\$1 and diameter and energy).clm.	US-PGPUB; USPAT	OR	OFF	2006/03/16 07:43
S1	5	(("4109633") or ("6407487") or ("6346766") or ("5898257") or ("5461275")).PN.	USPAT; USOCR	OR	OFF	2006/03/16 05:48
S2	5	S1 and gap and (diameter or length) and electrode\$1	USPAT	OR	OFF	2004/12/24 08:44
S3	5	S1 and gap and (protrusion or length) and (electrode\$1 or plug or mm )	USPAT	OR	OFF	2004/12/24 08:52
S4	787	123/169el,169ea,169r.ccls.	USPAT	OR	OFF	2005/10/07 11:04
S5	60	S4 and electrode\$1 and (gap or protrusion or length) and mm	USPAT	OR	OFF	2004/12/24 09:10
S6	44	S4 and electrode\$1 and (gap or clearance) and (protrusion or length) and mm	USPAT	OR	OFF	2004/12/24 09:11
S7	22	S4 and electrode\$1 and ((gap or clearance) and (protrusion or length) )with mm	USPAT	OR	OFF	2004/12/24 11:55
S8	23	S4 and electrode\$1 and ((gap or clearance) and (protrusion or projection or length) )with mm	USPAT	OR	OFF	2004/12/24 09:22
S9	73	313/141.ccls. and electrode\$1 and ((gap or clearance) and (protrusion or projection or length) )with mm	USPAT	OR	OFF	2005/11/08 12:17
S10	63	313/141.ccls. and electrode\$1 and ((gap or clearance) and (protrusion or projection or tip ))with mm	USPAT	OR	OFF	2004/12/24 10:08
S11	106	313/141.ccls. and electrode\$1 and (gap or clearance) and length with mm	USPAT	OR	OFF	2004/12/24 10:09
S12	68	313/141.ccls. and electrode\$1 and ((gap or clearance) and length) with mm	USPAT	OR	OFF	2004/12/24 10:22
S13	2	313/141.ccls. and electrode\$1 and ((gap or clearance) and "both" with (protrusion or length)) with mm	USPAT	OR	OFF	2004/12/24 10:25

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S14	70	313/141.ccls. and electrode\$1 and ((gap or clearance) and (protrusion or length)) with mm	USPAT	OR	OFF	2004/12/24 10:25
S15	558	313/144.ccls.	USPAT	OR	OFF	2005/10/07 11:04
S16	14	S15 and S14	USPAT	OR	OFF	2004/12/24 11:54
S17	487	S15 not S4	USPAT	OR	OFF	2004/12/24 11:54
S18	475	S17 not S14	USPAT	OR	OFF	2004/12/24 11:55
S19	324	engine and electrode\$1 and ((gap or clearance) and (protrusion or tip or length) )with mm	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/28 08:28
S20	445	(Miwa or Yoshinaga or Kanao).inv. and electrode\$1	USPAT	OR	OFF	2004/12/24 11:56
S21	64	S20 and (spark or plug or ignition)	USPAT	OR	OFF	2004/12/24 11:57
S22	1607	123/169el,169ea,169r;313/141.ccls.	USPAT	OR	OFF	2005/11/08 12:17
S23	6	S22 and electrode and base with taper\$3.clm.	USPAT	OR	OFF	2005/10/07 11:09
S24	5	S22 and electrode and base with taper\$3.clm. and diameter	USPAT	OR	OFF	2005/10/07 11:09
S25	365	electrode and base with taper\$3.clm.	US-PGPUB; USPAT	OR	OFF	2005/10/07 11:24
S26	90	electrode and base with taper\$3.clm.	US-PGPUB	OR	OFF	2005/10/07 11:24
S27	6	S26 and spark	US-PGPUB	OR	OFF	2005/10/07 11:25
S28	2484	123/169el,169ea,169r,634, 594;313/141,144.ccls.	USPAT	OR	OFF	2005/11/08 12:18
S29	21	S28 and "mJ"	USPAT	OR	OFF	2005/11/08 12:35
S30	5	S29 and coil with diameter	USPAT	OR	OFF	2005/11/08 12:37
S31	4	S29 and coil with diameter and engine	USPAT	OR	OFF	2005/11/08 12:37